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(52) **U.S. Cl.** **257/330; 257/E29.262**(57) **ABSTRACT**

A semiconductor structure comprises trenches extending into a semiconductor region. Portions of the semiconductor region extend between adjacent trenches forming mesa regions. A gate electrode is in each trench. Well regions of a first conductivity type extend in the semiconductor region between adjacent trenches. Source regions of a second conductivity type are in the well regions. Heavy body regions of the first conductivity type are in the well regions. The source regions and the heavy body regions are adjacent trench sidewalls, and the heavy body regions extend over the source regions along the trench sidewalls to a top surface of the mesa regions.

(76) **Inventors:** **James Pan**, West Jordan, UT (US);
Scott L. Hunt, West Jordan, UT (US); **Dean E. Probst**, West Jordan, UT (US); **Hossein Paravi**, Sandy, UT (US)

Correspondence Address:

TOWNSEND AND TOWNSEND AND CREW, LLP
TWO EMBARCADERO CENTER, EIGHTH FLOOR
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